G 4 ê

Missouri Department of Natural Resources

PUBLIC NOTICE

APPLICATION FOR MISSOURI STATE OPERATING PERMIT

DATE: September 22, 2006

In accordance with the state Clean Water Law, Chapter 644, RSMo, Clean Water Commission regulation 10 CSR 20-6.010, and the federal Clean Water Act, the applicants listed herein have applied for authorization to either discharge to waters of the state or to operate a no-discharge wastewater treatment facility. The proposed permits for these operations are consistent with applicable water quality standards, effluent standards and/or treatment requirements or suitable timetables to meet these requirements (see 10 CSR 20-7.015 and 7.031). All permits will be issued for a period of five years, unless noted otherwise in the Public Notice for that discharge.

On the basis of preliminary staff review and the application of applicable standards and regulations, the Missouri Department of Natural Resources (MDNR), as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions. The proposed determinations are tentative pending public comment.

Persons wishing to comment on the proposed effluent limitations and/or determinations are invited to submit them in writing to the Department of Natural Resources, Northeast Regional Office, 1709 Prospect Drive, Macon, MO 63552, ATTN: G. Irene Crawford, Regional Director. Please include the permit number in all comment letters.

Comments should be confined to the issues relating to the proposed action and permit(s) and the effect on water quality. The MDNR may not consider as relevant comments or objections to a permit based on issues outside the authority of the Clean Water Commission, (see <u>Curdt v. Mo. Clean Water Commission</u>, 586 S.W.2d 58 Mo. App. 1979).

All comments must be postmarked by October 23, 2006, or received in our office by 5:00 p.m. on October 26, 2006. The requirement of a signed document makes it impossible to accept email comments for consideration at this time. Comments will be considered in the formulation of all final determinations regarding the applications. If response to this notice indicates significant public interest, a public meeting or hearing may be held after due notice for the purpose of receiving public comment on the proposed permit or determination. Public hearings and/or issuance of the permit will be conducted or processed according to 10 CSR 20-6.020.

Copies of all draft permits and other information including copies of applicable regulations are available for inspection and copying at DNR's website, http://www.dnr.mo.gov/env/wpp/index.html, or at the Department of Natural Resources, Northeast Regional Office, 1709 Prospect Drive, Macon, Missouri 63552.

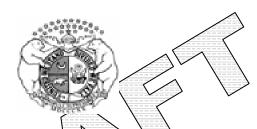
Public Notice Date: September 22, 2006)
Permit Number: MO-0056278	
Northeast Regional Office	

FACILITY NAME AND ADDRESS	NAME AND ADDRESS OF OWNER
Canton Wastewater Treatment Facility	City of Canton
19198 State Highway B	P.O. Box 231
Canton, MO 63435	Canton, MO 63435
RECEIVING STREAM & LEGAL DESCRIPTION	TYPE OF DISCHARGE
Unnamed tributary to Mississippi River Mississippi River (P) (00001) Sec.1, T61N, R6W, Lewis County	Domestic, reissuance

STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law (Chapter 644 R)S Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-590, 92nd Congress) as amended,

MO-005627

Permit No.

MO 780-0041 (10-93)

City of Canton Owner: 124 North 5th Street, Canton, MO 63435 Address: Continuing Authority: Same as above Address: Same as above Facility Name: Canton Wastewater Treatment Facility Facility Address: Highway B South, Canton, MO 63435 Legal Description: SE 1/4, NW 1/4, Sec. 1, T61N, R6W, Lewis County Latitude/Longitude: +4006568/-9130551 Receiving Stream: Unnamed tributary to Mississippi River (U) First Classified Stream and ID: Mississippi River (P) (00001) 303(d) USGS Basin & Sub-watershed No.: (07110001-110004)is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein: **FACILITY DESCRIPTION** Outfall #001 - POTW SIC #4952 Three-cell lagoon with an aerated primary cell /sludge retained in lagoon Design population equivalent is 3,482. Design flow is 0.36 Million gallons per day. Actual flow is 0.53 Million gallons per day. (Actual flow over design flow) Design sludge production is 54 dry tons/year. This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law. Effective Date Doyle Childers, Director, Department of Natural Resources Executive Secretary, Clean Water Commission **Expiration Date** G. Irene Crawford, Director, Northeast Regional Office

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

PAGE NUMBER 2 of 5

PERMIT NUMBER MO-0056278

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limitations shall become effective upon issuance and remain in effect until four (4) years and 364-days from the issuance of this permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND	UNITS	INTERIM EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
EFFLUENT PARAMETER(S)	OTVITO	DAILY MAXIMUM			MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #001 Flow	MGD	*		*	once/month	24hr.
Biochemical Oxygen Demand ₅ ***	mg/L_			45	once/month	estimate grab
Total Suspended Solids***	mg/L		120	80	once/month	grab
pH – Units	\ s\u\	**		**	once/month	grab
Ammonia as N	m/g/L	*		*	once/month	grab
Fecal Coliform (Note 1)	#/100ml	*		*	once/month	grab
Temperature	°C	*		*	once/month	grab
Oil and Grease	mg/L	15		10	once/month	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE_____. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I, II, & III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u>, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** pH is measured in pH units and is not to be averaged. The pH is to be maintained at or above 6.0 pH units.
- *** This facility is required to meet a removal efficiency of 65 % or more.

Note 1 – Final limitations and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

PAGE NUMBER 3 of 5

PERMIT NUMBER MO-0056278

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective one (1) day before the date of expiration of this permit and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
EFFLUENT PARAMETER(S)	OTVITO .	DAILY MAXIMUM	WEEKLY MONTHLY AVERAGE		MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #001 Flow	MGD	*		*	once/month	24hr. estimate
Biochemical Oxygen Demand ₅ ***	mg/L			45	once/month	grab
Total Suspended Solids***	mg/L		120	80	once/month	grab
pH – Units	\ s\v\	**		**	once/month	grab
Ammonia as N	m/g/L	*		*	once/month	grab
Fecal Coliform (Note 1)	#/100ml	1000		400	once/month	grab
Temperature	°C	*		*	once/month	grab
Oil and Grease	mg/L	15		10	once/month	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE ______. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I, II, & III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u>, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** pH is measured in pH units and is not to be averaged. The pH is to be maintained at or above 6.0 pH units.
- *** This facility is required to meet a removal efficiency of 65 % or more.

Note 1 – Final limitations and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31.

C. SPECIAL CONDITIONS

- 1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of awaste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the reserving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

- 2. All outfalls must be clearly marked in the field
- 3. Permittee will cease discharge by connection to area-wide wastewater treatment system within 90 days of notice of its availability.
- 4. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 μ g/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 μ g/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
- 5. Report as no-discharge when a discharge does not occur during the report period.

6. Water Quality Standards

- (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
- (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses:
 - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (5) There shall be no significant human health hazard from incidental contact with the water;
 - (6) There shall be no acute toxicity to livestock or wildlife watering;
 - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

C. SPECIAL CONDITIONS (continued)

7. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities

(a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with

the attached permit Standard Conditions.

(b) If sludge is not removed by a contract hauler, permittee is authorized to land apply biosolids. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.

D. SCHEDULE OF COMPLIANCE

- 1. The final daily maximum and monthly average Fscal Conform limits of 400/100ml and 1000/100ml, respectively, shall become effective one day prior to the expiration date of the permit or December 31, 2013, whichever comes first unless items (b) or (c) below are approved by the Department. The Effluent Regulation, 10 CSR 20 7.015(9)(H), allows the permittee up to five years from the issuance date of this permit to:
 - (a) Install disinfection facilities, or,
 - (b) Present an evaluation to show that disinfection is not required to protect one or both recreational uses, or;
 - (c) Present a Use Attainability Analysis (UAA) that demonstrates one or both designated recreational uses are not attainable in the classified waters receiving the effluent.
- 2. If chlorination is the chosen method of disinfection, a Total Residual Chlorine limit will be added to the permit.



Missouri Department of Natural Resources

Water Protection Program

NPDES PERMITS AND ENGINEERING SECTION

Water Quality Review Sheet

Facility Information NPDES MO-0056278 FACILITY NAME: Canton WWTF FACILITY Two-cell lagoon with a design flow of 0.36 MGD. Sludge is pumped and hauled TYPE/DESCRIPTION: and land applied by con tractor. EDU*: **PMSD** 0711000 COUNTY: 8- DIGIT Lewis HUC: * - Ecological Drainage Unit LATITUDE/LONGITUDE: +4006568/- $SE\frac{1}{4}$, $NW\frac{1}{4}$, Sec. 1, T61N, R6W T.EGAT. DESCRIPTION: 9130551 Water Quality History: Effluent limits for BOD and TSS have been exceeded in past. DMR's indicate that

OUTFALL	DESIGN FLOW	TREATMENT LEVEL	RECEIVING WATERBODY	DISTANCE TO CLASSIFIED SEGMENT (MI)
001	0.56	Equiv. Secondary	Mississippi River	N/A

design flow is exceeded regularly.

Receiving Waterbody Information

			Low-Flow Values (CFS)			**
Waterbody Name	VATERBODY NAME CLASS WBI		1Q10	7Q10	30Q1 0	Designated Uses
Mississippi River	D	0001	1530	1806	2198	LWW, AQL, WBC,
MISSISSIPPI RIVCI		0001	9	4	2	SCR,DWS, IND

^{**} Irrigation (IRR), Livestock & Wildlife Watering (LWW), Protection of Warm Water Aquatic Life and Human Health-Fish Consumption (AQL), Cool Water Fishery

(CLF), Cold Water Fishery (CDF), Whole Body Contact Recreation (WBC), Secondary Contact Recreation (SCR), Drinking Water Supply (DWS), Industrial (IND)

COMMENTS:

Mississippi River is a 303(d) listed stream for Chlrodane and PCB's. Canton WWTF is not

considered to be a source of these pollutants. NERO will need to determine appropriate design flow

and/or reason for the hydraulic overflow issue. If the design flow listed above is determined to be

incorrect, then this WQRS will need to be revised to show appropriate TRC limitations.

Mixing Considerations

Mixing Zone (MZ): One-quarter (1/4) of the stream volume of flow; length one-quarter (1/4) mile. [10 CSR 20-7.031(4)(A)4.B.(IIA)(a)].

Zone of Initial Dilution (ZID): One-tenth (0.1) of the mixing zone volume of flow, not to exceed 10 times the effluent design flow. [10 CSR 20-7.031(4)(A)4.B.(III)(b)].

	Flow (cfs)	MZ (cfa)	ZID (cfs)
7Q10	18064	4518	5.6
1Q10	15309	3827	5.6
30010	21982	5496	5.6

Applicable mixing zone regulation:

Permit Limits and Information

WASTELOAD ALLOCATION
STUDY CONDUCTED (Y OR N):

USE ATTAINABILITY
N ANALYSIS CONDUCTED (Y OR
N):

N Us

WHOLE BODY CONTACT
USE RETAINED (Y OR N):

Y

OUTFALL #001

WET TEST (Y OR N): Y FREQUENCY: ONCE/YEAR AEC: 100 % METHOD: SINGLE

PARAMETER	Daily Maximum	Weekly Average	Monthly Average	MONITORING FREQUENCY
FLOW	*		*	once/day
BOD ₅ (MG/L)**		65	45	Once/month
TSS (MG/L)**		120	80	Once/month
PH (S.U.)	> 6		> 6	Once/month
Ammonia as N (mg/L)	*		*	Once/month
Temperature (°C)	*		*	Once/month
FECAL COLIFORM (NOTE 1)	1000		400	Once/month
CHLORINE, TOTAL RESIDUAL (MG/L)	0.21		0.1	Once/month
OIL & GREASE (MG/L)	15		10	Once/month

^{* -} Monitoring requirement only.

Note 1 - Colonies/100 ML

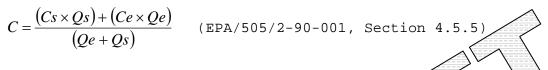
Receiving Water Monitoring Requirements

No receiving water monitoring requirements recommended at this time.

^{** -} This facility is required to meet a removal efficiency of 65% or more for BOD_5 and TSS. Influent BOD_5 and TSS data should be reported to ensure removal efficiency requirements are met.

Derivation and Discussion of Limits

Wasteload allocations were calculated using water quality criteria or water quality model results and the dilution equation below:



Where C = downstream concentration

Cs = upstream concentration

Qs = upstream flow

Ce = effluent concentration

Qe = effluent flow

Chronic wasteload allocations were determined using applicable chronic water quality criteria (CCC: criteria continuous concentration) and stream volume of flow at the edge of the mixing zone (MZ). Acute wasteload allocations were determined using applicable water quality criteria (CMC: criteria maximum concentration) and stream volume of flow at the edge of the zone of initial dilution (ZID).

Water quality based maximum daily and average monthly effluent limitations were calculated using methods and procedures outlined in USEPA's "Technical Support Document For Water Quality-based Toxics Control" (EPA/505/2-90-001).

Outfall #**001** – *Main Facility Outfall*

- Biochemical Oxygen Demand (BOD_5) . Effluent limitations have been retained from previous state operating permit.
- <u>Total Suspended Solids (TSS).</u> Effluent limitations have been retained from previous state operating permit.
- pH. Effluent limitation has been retained from previous state operating permit.
- <u>Total Ammonia Nitrogen, Temperature.</u> Monitoring requirement only. Monitoring for temperature and ammonia are included to determine whether "reasonable potential" to exceed water quality standards exists after the discharge begins.
- Fecal Coliform. Discharge shall not contain more than a monthly geometric mean of 400 colonies/100 mL and a daily maximum of 1000 colonies/100 mL during the recreational season (April 1 October 31) [10 CSR 20-7.015(2)(B)4.]. Future renewals of the facility operating permit will contain effluent limitations for E. coli, which will replace fecal coliform as the applicable bacteria criteria in Missouri's water quality standards.
- Total Residual Chlorine (TRC). Warm-water Protection of Aquatic Life CCC = 10 $\mu g/L$, CMC = 19 $\mu g/L$ [10 CSR 20-7.031, Table A]. Background TRC = 0.0 $\mu g/L$

Chronic WLA:
$$C_e = ((0.56 + 4516)10 - (4516 * 0.0))/0.56$$
 $C_e = 80,653 \ \mu g/L$

Acute WLA: $C_e = ((0.56 + 5.6)19 - (5.6 * 0.0))/0.56$

LTA_c = 80,653 μ g/L (0.527) = 42,504 μ g/L [CV = 0.6, 99th Percentile] LTA_a = 209 μ g/L (0.321) = 67.1 μ g/L [CV = 0.6, 99th Percentile] MDL = 67.1 μ g/L * 3.11 = 208.7 μ g/L [CV = 0.6, 99th Percentile] AML = 67.1 μ g/L * 1.55 = 104.0 μ g/L [CV = 0.6, 95th Percentile, n = 4]

Total Residual Chlorine effluent limits of 0.21 mg/L daily maximum, 0.1 mg/L monthly average are recommended if chlorine is used as a disinfectant. Standard compliance language for TRC, including the minimum level (ML), should be included in the permit.

• Oil & Grease. Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum.

Reviewer: Michael Abbott

Date: July 6, 2006

Unit Chief: Refaat Mefrakis

Monitoring and effluent limits contained within this document have been developed in accordance with EPA guidelines using the best available data and are believed to be consistent with Missouri's Water Quality Standards and Effluent Regulations. If additional water quality data or anecdotal information are available that may affect

Date of Fact Sheet: July 20, 2006

Date of Public Notice: August 25, 2006

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FACT SHEET

This Fact Sheet explains the applicable regulations, rationale for development of this permit and the public participation process.

NPDES PERMIT NUMBER: MO-0056278

FACILITY NAME: Canton Wastewater Treatment Facility

OWNER NAME: City of Canton

LOCATION: Sec. 1, T61N, R6W, Lewis County

RECEIVING STREAM: Unnamed tributary to Mississippi River (U)

FACILITY CONTACT PERSON: George Nausdorf TELEPHONE: (573) 288-5581

FACILITY DESCRIPTION

Three-cell lagoon system with an aerated primary cell with a design flow of 0.36 million gallons per day plant. The discharge is at outfall #001. The receiving stream is an unnamed tributary to the Mississippi River. The treated wastewater travels approximately 0.18 miles and enters the Mississippi River.

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollutant Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Permits in Missouri are issued by the Director of the Department of Natural Resources under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended).

10 CSR 20-7.031 Missouri Water Quality Standards, Missouri Department of Natural Resources (the Department) "defines the Clean Water Commission water quality objectives in terms of water uses to be maintained and the criteria to protect those uses." The receiving stream's beneficial water uses to be maintained are livestock and wildlife watering, protection of aquatic life, drinking water supply, Industrial, whole body contact A, and secondary contract recreation.

To protect these beneficial uses and the water quality of the receiving stream, effluent limitations are being established under federal and state laws.

EFFLUENT LIMIT DERIVATION & RATIONALE

A Water Quality Review Sheet was developed for the effluent limits.

This permit will be issued for a period of <u>five</u> years.